

PATENT APPLICATION Attorney Docket No. D/40584 OEC 1-10058

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on December 10, 2003.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE **BOARD OF PATENT APPEALS AND INTERFERENCES**

Application of: Ralph A. Mosher, et al.)	
)	Art Űnit: 1774
Application No.: 09/833,546)	
)	Examiner: Tamra Dicus
filed: April 11, 2001)	

Title: IMAGEABLE SEAMED BELTS HAVING POLYAMIDE ADHESIVE BETWEEN INTERLOCKING SEAMING MEMBERS

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

LETTER

Enclosed herewith are an original and two copies of Appellant's Brief on Appeal in the above-identified application.

Please charge any fees associated with the filing of the Brief on Appeal to Xerox Deposit Account No. 24-0025. Duplicate copies of this sheet are enclosed.

Respectfully submitted,

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El Segundo, California Date: December 10, 2003

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1. TABLE OF CASES

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2. Real Party of Interest

Xerox Corporation.

3. Related Appeals and Interferences

No other Appeals or Interferences are known to Appellants, Appellants' Legal Representative, or the Assignee which will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

4. Status of Claims

Claim 2 is canceled.
Claims 1 and 3-25 are rejected.
Claim 26 has been withdrawn.

5. Status of Amendments

Appellant's Amendment after Final Rejection under 37 C.F.R. §1.116 dated August 5, 2003, was considered and entered but did not overcome the outstanding rejections.

6. Summary of Invention

Appellant's invention is directed, in embodiments, to an endless seamed flexible belt comprising a first end and a second end, each of the first end and second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form a seam, and the belt comprises a substrate and the seam comprises an adhesive comprising an alcohol soluble polyamide (claim 1 as amended in Amendment dated 12/18/02, present application (hereinafter, "pa") pg. 7, lines 4-8 and pg. 15, lines 15-17). In embodiments, the belt comprises a polyimide substrate and the seam comprises an adhesive comprising an alcohol-soluble polyamide and electrically conductive filler (claim 25, pa, pg. 7, lines 9-14).

The present belt can be used in electrostatographic apparatuses (pa, pg. 2, lines 6-7). In embodiments, an image can be transferred at the seam with little or no print defects caused by the seam (pa, pg. 2, lines 7-11). In embodiments, the seam is virtually to totally invisible to the xerographic imaging process (pa, pg. 3, lines 5-6).

7. Issues

A. Whether claims 1 and 3-25 are unpatentable under 35 U.S.C. §103(a) over Parker et al. (U.S. Patent 5,721,032) in view of Fuller et al. (U.S. Patent 6,069,470) and further in view of Sakakibara et al. (U.S. Patent 5,663,283) and Handbook of Thermoset Plastics (2nd Edition, 1998).

8. Grouping of Claims

Claims 1 and 3-25 stand or fall together.

9. Argument

Referring to Figures 1 through 13 and pages 7-37 of the application, there is demonstrated embodiments of the belt. The claimed elements include an endless seamed flexible belt comprising a first end and a second end, each of the first end and the second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form

a seam, the belt comprising a substrate and the seam comprising an adhesive comprising an alcohol-soluble polyamide (claim 1, pa. pg. 7, lines 4-8 and pg. 15, lines 15-17). The adhesive can be crosslinked (claim 14, pa. pg. 18, lines 8-12). In embodiments, the crosslinking agent can be oxalic acid (claim 15, pa. pg. 18, line 12).

In embodiments, the alcohol-soluble polyamide comprises pendant groups selected from the group consisting of methoxy, ethoxy, and hydroxy pendant groups (claim 3, pa. pg. 15, lines 29-20). In embodiments, the pendant groups are methylene methoxy pendant groups (claim 4, pa. pg. 15, line 21). In embodiments, the polyamide has the formula of claim 5 (claim 5, pa. pg. 15, line 22 - pg. 16, line 23), and R in the formula can be methylene methoxy group (claim 6, pa. pg. 16, line 7).

An electrically conductive filler can be included in the adhesive (claim 7, pa. pg 16, lines 24-25), and the filler can be selected from the group consisting of carbon fillers, metal oxide fillers, polymer fillers, charge transporting molecules, and mixtures thereof (claim 9, pa. pg 16, lines 26-27). Specific fillers are set forth in claims 10-13 and 16 (pa, pg. 16, line 24 - pg. 18, line 2).

In embodiments, the substrate can be a polymer selected from the group consisting of polyimide and polycarbonate (claim 17, pa. pg. 19, lines 12-15) or a polyaniline polyimide (claim 18, pa. pg. 19, line 14).

In embodiments, the seam has a volume resistivity of from about 10¹ to about 10¹³ ohmscm (claim 19, pa. pg 15, line 7), or from about 10⁹ to about 10¹¹ ohmscm (claim 20, pa. pg. 15, line 8).

In embodiments, the belt is an intermediate transfer belt (claim 21, Figure 2, pg. 10, line 1).

In embodiments, the plurality of mutually mating elements are in the form of a puzzle cut pattern (claim 22, Figures 4-9, pa. pg 13, line 9). In embodiments, the mutually mating elements comprise a first projection and a second receptacle geometrically oriented so that the second receptacle on the first end receives the first projection on the second end and wherein the first projection on the first end is received by the second receptacle on the second end to form a joint between the first and second ends (claim 23, pa. pg. 13, lines 11-15). In embodiments, the first projection and the second receptacle are curved (claim 24, Figures 3-7 and 9, pa. pg. 14, lines 6-9).

A. Whether claims 1 and 3-25 are unpatentable under 35 U.S.C. §103(a) over Parker et al. (U.S. Patent 5,721,032) in view of Fuller et al. (U.S. Patent 6,069,470) and further in view of Sakakibara et al. (U.S. Patent 5,663,283) and Handbook of Thermoset Plastics (2nd Edition, 1998).

Claims 1 and 3-25 stand rejected under 35 U.S.C. §103(a) over Parker et al. (U.S. Patent 5,721,032) in view of Fuller et al. (U.S. Patent 6,069,470) and further in view of Sakakibara et al. (U.S. Patent 5,663,283) and Handbook of Thermoset Plastics (2nd Edition, 1998).

1) There is no prima facia case of obviousness

To establish a *prima facia* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not

based on Appellant's disclosure. In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP §706.02(j).

a) The references, taken together, do not teach or suggest all the claim limitations

The references alone, and in combination, do not teach or suggest a seam comprising an adhesive comprising an alcohol-soluble polyamide. Therefore, Appellants respectfully submit that a *prima facia* case of obviousness has not been met.

Parker et al. teaches a puzzle cut seamed belt comprising a seam having mutually mating elements in an interlocking fashion (Parker et al., Abstract). As recognized by the Examiner, Parker et al. does not teach or suggest an alcohol-soluble polyamide adhesive as claimed. (Office Action, 9/30/02, pg. 5, lines 4-5; Final Office Action, 6/13/03, pg. 2, last line - pg. 3, line 1).

Turning to Fuller et al., this reference does not teach a puzzle cut seam as does Parker et al. Fuller et al. teaches overcoats for photoreceptors (Fuller et al., Abstract). Appellants point out that this reference does not teach an alcohol-soluble polyamide <u>adhesive</u> as claimed. Instead, the reference teaches that one of the <u>layers</u> (and <u>not an adhesive</u>) of an electrostatographic imaging member comprises polyamides and alcohol-soluble polyamides (Fuller et al., col. 8, lines 1-8, col. 12, lines 19-21). Fuller et al. teaches photoreceptors including various layers stacked on top of one another (Fuller et al., Abstract). Binder resins are included in the layers and are used within the <u>matrix</u> of the different layers such as a charge generation binder layer (Fuller et al., col. 7, lines 63-65), overcoat layer (Fuller et al., col. 12, lines 19-21, Example II) or charge transport layer (Fuller et al., Example 1). In other words, the alcohol-soluble polyamide is <u>the layer itself</u>, and is not an adhesive within the layer <u>and does not bind the layers together</u> (Fuller et al., col. 7, line 63-col. 8, lines 1-8; col. 12, lines 19-21). The use of the term "binder resin" does not teach that the resin binds layers together. Instead, it is a teaching of a certain type of resin <u>within a layer</u>.

Adhesives are listed in the reference at column 7, lines 49-55. These adhesives <u>do not include an alcohol-soluble polyamide</u>. Instead, the adhesives listed in Fuller et al. include <u>polyesters, polyurethanes</u>, and the like (Fuller et al., col. 7, lines 49-55). The alcohol-soluble polyamide is taught as a layer and not as an adhesive (Fuller et al., col. 7, line 63 - col. 8, line 8; col. 12, lines 19-21).

If the teachings of Fuller et al. related to adhesives were combined with Parker et al., then the modification would be to use the adhesive of Fuller et al., which include polyesters, polyurethanes, and the like (Fuller et al., col. 7, lines 49-55), in the Parker et al. belt. The combination would teach the belt of Parker et al. having a polyester or polyurethane adhesive. The resulting combination would not teach the claimed belt comprising a seam comprising an alcohol-soluble polyamide.

Assuming arguendo that Fuller et al. does teach an alcohol-soluble polyamide adhesive, Fuller et al. does not teach or suggest use of an alcohol-soluble polyamide adhesive as an adhesive in a seam as claimed. The present claims recite a belt comprising a substrate and a seam comprising an adhesive comprising an alcohol-soluble polyamide (claim 1). Fuller et al. teaches an alcohol-soluble binder layer (Fuller et al., col. 7, lines 63-65) or overcoat layer (Fuller et al., col. 12, lines 19-21), and does not teach or suggest use of the binder layer between seaming members as claimed. Therefore, the teachings in Fuller et al., assuming arguendo that the reference teaches an alcohol-soluble polyamide adhesive, would be teachings to bond layers together, and not to bond seaming members as claimed and as taught by Parker et al.

Sakakibara et al. teaches polyamide photoreceptors (Sakakibara et al., Abstract). As recognized by the Examiner, Sakakibara et al. also does not teach or suggest the deficiencies of the primary and secondary references, and does not teach an alcohol-soluble polyamide used as an adhesive to bind two ends of a belt together as claimed (Final Office Action, 6/13/03, page 5, lines 11-14).

Also, as recognized by the Examiner, The Handbook of Thermoset Plastics also does not teach or suggest use of an alcohol-soluble polyamide adhesive to bind two ends of a belt together as claimed (Final Office Action, 6/13/03, page 5, lines 11-14).

Therefore, none of the primary, secondary, tertiary or quaternary references teach or suggest an alcohol-soluble polyamide adhesive present in a seam of a belt as claimed.

b) There is no suggestion to modify or combine the references

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. *In re Geiger*, 2 USPQ2d 1276 (Fed. Cir. 1987); *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988).

Appellants respectfully submit that there is no suggestion to modify or combine the references. The Examiner states that "it would have been obvious to include the adhesive composition of Fuller to produce an improved belt having properties such as a longer wear life as taught by Fuller at col. 5, line 67, and col. 6, lines 1-50" (Final Office Action, 6/13/03, page 3, lines 15-18).

As set forth above, Fuller et al. does not teach or suggest an alcohol-soluble adhesive. Instead, Fuller et al. teaches use of an alcohol-soluble polyamide binder in a layer or coating of a photoreceptor (Fuller et al., col. 12, lines 19-21). Therefore, Fuller et al. does not suggest to modify the belt of Parker et al. to include an alcohol-soluble polyamide material taught by Fuller et al. as a layer, because Fuller et al. does not teach use of an alcohol-soluble polyamide material as an adhesive between seams.

Moreover, the modification pointed to by the Examiner at column 6, lines 1-50 of Fuller et al. (Final Office Action, 6/13/03, page 3, lines 15-18) relates to improvements in the <u>overcoat</u> layer of the photoreceptor and does not relate to seamed belts as claimed, and as taught by Parker et al. Specifically, most of the modifications relate to providing "thicker overcoats" (Fuller et al., col. 6, lines 6, 9, 12 and 15). In fact, there is no teaching in Fuller et al. that the imaging member disclosed therein can be seamed at all. The present claims relate to a belt comprising a <u>seam</u> comprising an adhesive comprising an alcohol-soluble polyamide. Appellants submit that suggestions in a reference related to an overcoat of an imaging member comprising layers stacked on top of one another, and not including a seam, would not have motivated one of ordinary skill in the art to use a material taught for use as a layer or overcoat, as an adhesive between seaming members as claimed.

A piecemeal reconstruction of the prior art patents in light of Appellant's disclosure is not a basis for a holding of obviousness. *In re Kamm et al.*, 172 USPQ 298 (CCPA 1972). The mere fact that the prior art devices could have been modified does not make the modification obvious unless the prior art suggested the desirability to such a modification. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984); *Jones v. Hardy*, 220 USPQ 1021 (Fed. Cir. 1984).

Therefore, because Fuller et al. does not teach a polyamide adhesive, and also, because Fuller et al. does not teach a seamed belt, Appellants submit that the combination cited does not suggest the modifications proposed by the Examiner.

c) There is no reasonable expectation of success

Appellants respectfully submit that there is no reasonable expectation of success. Specifically, there is no evidence that replacing the adhesive of the seam of Parker et al. with the layer or overcoat material of Fuller et al. would have been successful. In addition, there is no evidence that the material taught by Fuller et al. as an overcoat or other layer, would work as a seam adhesive to bond a seam of a belt comprising mutually mating elements, as claimed.

Appellants point out that Fuller et al. teaches use of an alcohol-soluble polyamide as a material for use in layers or overcoats for an imaging member (Fuller et al., col. 12, lines 19-21). Specifically, Fuller et al. teaches that objects of the invention include providing "thicker overcoats" (Fuller et al., col. 6, lines 6, 9, 12 and 15). Appellants submit that there would have been no reasonable expectation that a material taught for use as a layer or overcoat or used for "thicker overcoats" of a non-seamed imaging member, would work well as an adhesive used in a seam of a belt as claimed. In other words, Appellants submit that there is no reasonable expectation that a material used to make a layer "thicker" would work well as an adhesive to bond seaming members of a belt together.

Fuller et al., Sakakibara et al. and the publication do not teach or suggest a belt comprising a first end and a second end, each of the first end and second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form a seam. The claimed endless seamed flexible belt is of a unique structure having mutually mating elements which join in an interlocking relationship to form a seam (claims 1 and 25, pa, pg. 7, lines 4-26). Such a unique belt having mutually mating elements and in an interlocking relationship as claimed, requires a specific adhesive to bond these intricate interlocking members together (pa. pg. 5, lines 3-29). Although Parker et al. teaches a puzzle cut seamed belt having mutually mating elements, the reference does not teach or suggest an alcohol-soluble polyamide adhesive. Appellants submit that there would have been no expectation of success that a material taught for use as an overcoat or other layer of an imaging member as in Fuller et al., would work well as an adhesive between very specific seaming members that comprise mutually mating elements which join in an interlocking relationship to form a seam.

Therefore, Appellants respectfully submit that there would have been no reasonable expectation of success that a material taught for use as a layer or overcoat in imaging members of a non-seamed belt, would work well as an adhesive of a seam of a belt comprising mutually mating elements in an interlocking relationship as claimed.

2) The cited combination teaches away from the claims

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc., v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983).

Appellants respectfully submit that the combination cited teaches away from the claims. As noted above, Fuller et al. teaches use of polyesters, polyurethanes, and the like adhesive materials (Fuller et al., col. 7, lines 49-55). Appellants submit that this is a teaching away from the use of the claimed alcohol-soluble polyamide adhesive. Appellants submit that this is further evidence of nonobviousness.

The references do not recognize the problems solved by the present claims

Appellants respectfully point out that the invention encompassed by the present claims provides an imagable seam, in which an image can be transferred at the seam with little or no print defects (pa, pg. 2, lines 9-11). The combination of interlocking mutually mating elements and alcohol-soluble polyamide adhesive provides a seam, which is virtually or totally invisible to an imaging process (pa, pg. 3, lines 5-6). Appellants also submit that none of the reference cited recognize the problem solved by the present invention. Appellants further submit that this is evidence of nonobviousness.

B. Summary

In summary, Appellants submit that claims 1 and 3-25 are not obvious in view of the cited combination. First, Appellants submit that a *prima facia* case of obviousness has not been made. Second, Appellants submit that the combination teaches away from the claims, which is further evidence of nonobviousness. Third, Appellants submit that the references do not recognize the problems solved by the present claimed invention, which is still further evidence of nonobviousness.

Appellants respectfully submit that a *prima facia* case of obviousness has not been made. None of the references teach or suggest the claimed belt comprising a seam comprising an alcohol-soluble polyamide adhesive material. Although the Examiner has argued that Fuller et al. teaches an alcohol-soluble polyamide adhesive (Final Office Action, 6/13/03, pg. 3, lines 6-8), in fact, Fuller does not teach an alcohol-soluble polyamide <u>adhesive</u>. On the contrary, Fuller et al. teaches that a layer or overcoat of an imaging member may comprise an alcohol-soluble polyamide material (Fuller et al., col. 12, lines 19-21). Fuller et al. does not teach an alcohol-soluble polyamide material as an adhesive, and instead, teaches <u>polyesters and polyurethanes</u> as adhesive materials (Fuller et al., col. 7, lines 49-55).

Appellants further submit that there is no motivation to combine the references. Appellants submit that the Fuller et al. teaching of an alcohol-soluble polyamide layer or overcoat in a non-seamed belt, would not have motivated one of skill in the art to use the alcohol-soluble polyamide material as an adhesive between seams such as in the seamed belt of Parker et al. Further, the modification pointed to by the Examiner at col. 6, lines 1-50 of Fuller et al. (Final Office Action, 6/13/03, page 3, lines 15-18) relate to improvements in the overcoat layer of the photoreceptor and do not relate to seamed belts as claimed and as taught by Parker et al. Specifically, most of the modifications relate to providing "thicker overcoats" (Fuller et al., col. 6, lines 6, 9, 12 and 15). Appellants submit that the teachings of Fuller et al. to use an alcohol-soluble polyamide to create thicker overcoat layers in an unseamed belt, would not have motivated one of skill in the art to use the alcohol-soluble polyamide as an adhesive in a seam of a belt as claimed.

Appellants also submit that there would have been no reasonable expectation of success. More specifically, Appellants submit that there would have been no reasonable expectation that a material taught for use as a layer or overcoat for use in "thicker overcoats" of a non-seamed imaging member, would work well as an adhesive used in a seam of a belt as claimed, and especially in a belt comprising mutually mating elements in an interlocking relationship as claimed.

In addition, Appellants submit that the combination cited teaches away from the claims, which is further evidence of nonobviousness. As noted above, Fuller et al. teaches use of polyesters, polyurethanes, and the like adhesive materials (Fuller et al., col. 7, lines 49-55). Appellants submit that this is a teaching away from the use of the claimed alcohol-soluble polyamide adhesive. Appellants submit that this is further evidence of nonobviousness.

Moreover, Appellants submit that none of the references recognize the problem solved by the present invention, namely, providing an imagable seam. Appellants submit that this is further evidence of nonobviousness.

Accordingly, Appellants submit that claims 1 and 3-25 are not obvious under 35 U.S.C. §103(a) over Parker et al. (U.S. Patent 5,721,032) in view of Fuller et al. (U.S. Patent 6,069,470) and further in view of Sakakibara et al. (U.S. Patent 5,663,283) and Handbook of Thermoset Plastics (2nd Edition, 1998).

For the reasons set forth herein, Appellants are of the position that the claims of the present application are patentable, and accordingly respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's rejections of the claims.

Respectfully submitted,

Annette L. Bade Reg. No. 37,029

10. Appendix

- 1. An endless seamed flexible belt comprising a first end and a second end, each of the first end and the second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form a seam, the belt comprising a substrate and the seam comprising an adhesive comprising an alcohol-soluble polyamide.
 - 2. (Cancelled).
- 3. An endless seamed flexible belt in accordance with claim 1, wherein said alcohol-soluble polyamide comprises pendant groups selected from the group consisting of methoxy, ethoxy and hydroxy pendant groups.
- 4. An endless seamed flexible belt in accordance with claim 3, wherein said pendant groups are methylene methoxy pendant groups.
- 5. An endless seamed flexible belt in accordance with claim 1, wherein said polyamide has the following general formula:

$$\begin{array}{c|c}
- & CH_2 - (CH_2)_3 - CH_2 - N \\
0 & R \\
\end{array}$$

wherein R is selected from the group consisting of hydrogen; alkyl having from about 1 to about 20 carbons, alkoxy having from about 1 to about 20 carbons, alkyl alkoxy having from about 1 to about 20 carbons, and alkylene alkoxy having from about 1 to about 20 carbons, and wherein n is a number of from about 50 to about 1,000.

- 6. An endless seamed flexible belt in accordance with claim 5, wherein R is a methylene methoxy group.
- 7. An endless seamed flexible belt in accordance with claim 1, wherein said adhesive further comprises an electrically conductive filler.
- 8. An endless seamed flexible belt in accordance with claim 7, wherein said electrically conductive filler is a quaternary ammonium salt.

- 9. An endless seamed flexible belt in accordance with claim 7, wherein said electrically conductive filler is selected from the group consisting of carbon fillers, metal oxide fillers, polymer fillers, charge transporting molecules, and mixtures thereof.
- 10. An endless seamed flexible belt in accordance with claim 9, wherein said electrically conductive filler is a carbon filler selected from the group consisting of carbon black, graphite, fluorinated carbon, and mixtures thereof.
- 11. An endless seamed flexible belt in accordance with claim 9, wherein said electrically conductive filler is a metal oxide filler selected from the group consisting of titanium dioxide, tin oxide, indium tin oxide, iron oxide, aluminum oxide, and mixtures thereof.
- 12. An endless seamed flexible belt in accordance with claim 9, wherein said electrically conductive filler is a polymer filler selected from the group consisting of polypyrrole, polyacrylonitrile, polythiophene, polyaniline and mixtures thereof.
- 13. An endless seamed flexible belt in accordance with claim 9, wherein said electrically conductive filler is a charge transporting molecule selected from the group consisting of bis(dihydroxy diethylamino) triphenyl methane, bis(diethylamino) triphenyl methane, dihydroxy tetraphenyl biphenylene diamine, and mixtures thereof.
- 14. An endless seamed flexible belt in accordance with claim 1, wherein said adhesive is crosslinked.
- 15. An endless seamed flexible belt in accordance with claim 14, wherein said adhesive is crosslinked using oxalic acid as a crosslinking agent.
- 16. An endless seamed flexible belt in accordance with claim 15, wherein said adhesive comprises an electrically conductive filler selected from the group consisting of carbon black, graphite, fluorinated carbon, silicon particles, and mixtures thereof.
- 17. An endless seamed flexible belt in accordance with claim 1, wherein said substrate comprises a polymer selected from the group consisting of polyimide and polycarbonate.
- 18. An endless seamed flexible belt in accordance with claim 17, wherein said polyimide is a polyaniline polyimide blend.

- 19. An endless seamed flexible belt in accordance with claim 1, wherein said seam has a volume resistivity of from about 101 to about 1013 ohms-cm.
- 20. An endless seamed flexible belt in accordance with-claim 19, wherein said seam has a volume resistivity of from about 109 to about 1011 ohm-cm.
- 21. An endless seamed flexible belt in accordance with claim 1, wherein said belt is an intermediate transfer belt.
- 22. An endless seamed flexible belt in accordance with claim 1, wherein said plurality of mutually mating elements are in the form of a puzzle cut pattern.
- 23. An endless seamed flexible belt in accordance with claim 22, wherein said mutually mating elements comprise a first projection and a second receptacle geometrically oriented so that said second receptacle on the first end receives the first projection on the second end and wherein said first projection on said first end is received by said second receptacle on the second end to form a joint between the first and second ends.
- 24. An endless seamed flexible belt in accordance with claim 23, wherein said first projection and said second receptacle are curved.
- 25. An endless seamed flexible belt comprising a first end and a second end, each of the first end and the second end comprising a plurality of mutually mating elements which join in an interlocking relationship to form a seam, said belt comprising a polyimide substrate, and the seam comprising an adhesive comprising an alcohol-soluble polyamide and an electrically conductive filler.
 - 26. (Withdrawn)